

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
13 October 2005 (13.10.2005)

PCT

(10) International Publication Number  
**WO 2005/094708 A1**

(51) International Patent Classification<sup>7</sup>: **A61B 17/82**,  
17/64

(21) International Application Number:  
PCT/IB2005/000826

(22) International Filing Date: 30 March 2005 (30.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
PCT/IB2004/001008 1 April 2004 (01.04.2004) IB

(71) Applicant and

(72) Inventor: **RICHTER, Jens** [DE/CH]; Riehenstrasse 44,  
CH-4058 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PLASS, André** [DE/CH]; Rämistrasse 100, Universitätsspital /

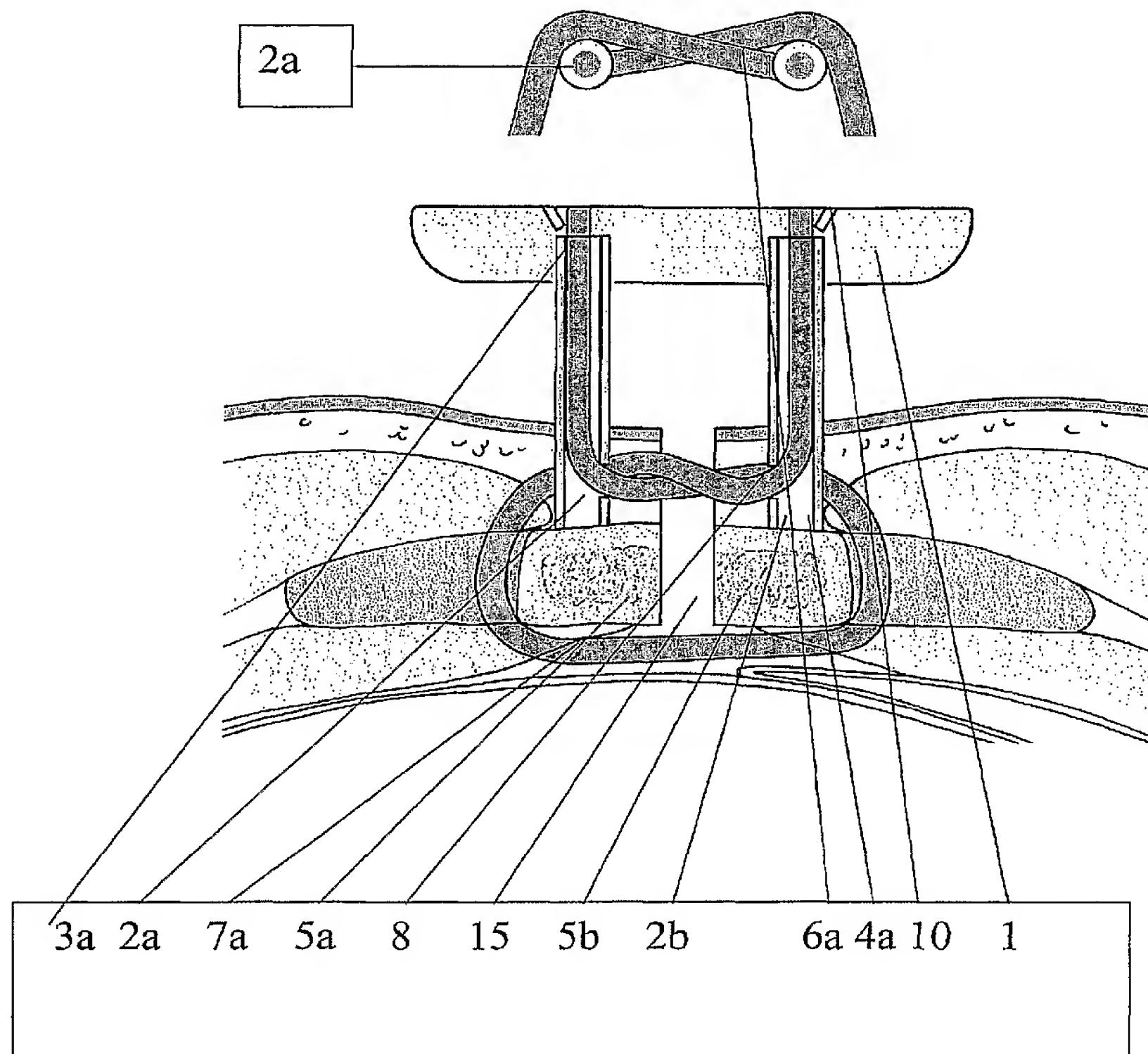
Herzchirurgie, CH-8091 Zürich (CH). **HÄUSSLER, Achim** [DE/CH]; Rämisstrasse 100, Universitätsspital / Herzchirurgie, CH-8091 Zürich (CH). **GRÜNENFELDER, Jürg** [CH/CH]; Rämisstrasse 100, Universitätsspital / Herzchirurgie, CH-8091 Zürich (CH). **ZÜND, Gregor** [CH/CH]; Rämisstrasse 100, Universitätsspital / Herzchirurgie, CH-8091 Zürich (CH). **TURINA, Marko** [CH/CH]; Rämisstrasse 100, Universitätsspital / Herzchirurgie, CH-8091 Zürich (CH).

(74) Agents: **ROSENICH, Paul** et al.; Patentbüro Paul Rosenich AG, BGZ, CH-9497 Triesenberg (LI).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,

*[Continued on next page]*

(54) Title: EXTERNAL FIXATOR FOR OSTEOSYNTHESIS OR BONE GAP MANIPULATION



(57) Abstract: The invention relates to an external fixator which has a retaining member (1) and connecting elements (2) which can be connected without screws to a bone or bone parts (5), in particular to both halves of an opened sternum, and provide possibilities for increasing or reducing the compressive stress between the two bone parts or sternum halves.

WO 2005/094708 A1



PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

**(84) Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*